# Northeast Region Inventory and Monitoring Program
# Aerial Photography Specifications Example
# For Color Infrared, Stereo Pair, 1:12,000 Scale

Spring aerial photos with airborne GPS and airborne IMU data of New River Gorge National River and its pending boundary (NERI), as well as Bluestone National Scenic River (BLUE) and the Gauley River National Recreation Area (GARI) (approximately 87,000 acres).

PURPOSE OF PROJECT: To produce leaf off, stereo pair, aerial photography with airborne GPS and IMU data of the parks.

PARK SIZES: New River Gorge National River (NERI) approximately 72,000 total acres; Bluestone National Scenic River (BLUE) approximately 4,336 total acres; Gauley River National Recreation Area (GARI) approximately 11,149.
Boundary files are available in ArcView shapefile format. This geo-spatial data has been projected to UTM-17N, NAD83, GRS80, with units in meters. To obtain the above mentioned files see below:

ftp to: _____ login: _____ password: _____

SPECIFICATIONS:

1. Vertical photographs ( < 3% tilt) of entire park will be taken from the air.
2. Photos will be taken in mid April to mid May 2002, for leaf off photography. (For other park units, check leaf off dates specific to that area)
3. Photos will be 9 inches x 9 inches color infrared transparencies. Color IR positive film will be used.
4. Photos will be stereo pairs with a minimum of 60% endlap along flight lines and 30% sidelap between lines. Photographs on park edges should have at least 30% of their side coverage outside the park boundary and 60% of their end coverage (along lines) outside the park boundaries.
5. Target scale will be 1:12000.
6. None of the areas should be photographed road line style (i.e. following the road directly); want straight flight lines.
7. Airborne GPS and IMU data will be collected (useable for National Map Accuracy Standards, Class 1 data generation and projected to UTM-17, NAD83, with units (vertical and horizontal) in meters).
8. A line index with photo centers overlaid on a base map will be required. This index must show overlap between photographs and along flight lines.
9. Photographs should be oriented North/South or East/West if reasonable to do so. (Include cost difference if park lends itself to NE/SW etc.)
10. Weather conditions will be such that cloud shadows will be so minor and infrequent that any impact on visibility of ground features will scarcely be noticed.
11. The x-axis of the photographs should be parallel or near parallel to the line of flight (minimal to no crab).

12. The sun angle shall not be lower than 30 degrees when the photography is undertaken to avoid deep shadows that might make ground detail unreadable.
13. Photographs should be labeled with flight line, frame number, date, time and scale

DELIVERABLES

1. Individual color infrared 9x9 transparencies of entire park (all digital imagery will not be accepted, 9 x 9 photographs are required for archival purposes);
2. A line index with flight lines and photo centers overlaid on a base map;
3. Post processed airborne GPS and IMU data (ASCII file of the X, Y, Height, Kappa, Phi and Omega for each exposure perspective center.);
4. Photos are deliverable 30 days after flight;
5. Copy of the camera calibration certificate.

Contact Information:
NPS contact